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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/939,497

08/24/2001

Timothy R. Faber

CRC-148/47181-00248

3304

23569

7590

12/30/2003

SQUARE D COMPANY
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

LUK, LAWRENCE W

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 12/30/2003.

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,497

Applicant(s)

FABER ET AL.

Examiner

Lawrence W Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-12, 23 and 32 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 13, 15-18, 20, 21, 24-27, 29, 30, 33 and 34 is/are rejected.
- 7) ☒ Claim(s) 5, 8, 14, 19, 22, 28 and 31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 13, 15, 18, 24, 27, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (5,600,411) in combination with Boudreault (6,125,841).

As to claims 1, Hart discloses in figure 1 & 3, column 7, line 56 to column 8, line 64 and column 9, lines 30-43, a filter assemblies (111) configured for interfitting with said filter mounting zones (171, 172) of said filter housing (152), each said filter (134, 140, 144) assembly comprising a generally rectilinear filter body having a given peripheral configuration and a filter gasket (150) configured for interfitting about a periphery of said filter body for sealingly engaging said filter body relative to said filter housing in response to forces encountered by said filter assembly both upon assembly and in operation. (refer to col.7, line 56 to col.8, line 64), but fails to disclose at least two filter assemblies configured for interfitting.

Boudreault disclose in figure 3 and column 4, lines 52-54, at least two filter assemblies (11) configured for interfitting.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart to include at least two filter

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assemblies configured as taught by Boudreault for the purpose of increasing the filter area.

As to claim 4, Hart disclose in column 9, lines 36-40, a small hole diffuser having a peripheral configuration similar to the peripheral configuration of said filter bodies, in the aggregate, when assembled with said filter housing and configured for interfitting within said filter housing, superimposed over said filter assemblies; in column 9, lines 41-44, a spacer interposed between said filters and said small hole diffuser; in column 9, lines 30-40, and a molded coarse hole diffuser, defining a combined diffuser and spacer integrally molded as a single, one-piece unit, said coarse hole diffuser including means for engaging and interfitting with said filter housing in close overlying engagement with said small hole diffuser.

As to claim 13, Hart disclose in column 9, lines 30-40, a generally rectilinear filter housing having at least two filter mounting zones for receiving filter assemblies, so as to define, in the aggregate, a filter assembly; in column 8, lines 33-59, and filter assemblies configured for interfitting with said filter mounting zones of said filter housing, each said filter assembly comprising a generally rectilinear filter body having a given peripheral configuration and a filter gasket configured for interfitting about a periphery of said filter body for sealingly engaging said filter body relative to said filter housing in response to forces encountered by said filter assembly both upon assembly and in operation; in column 9, lines 36-40, a small hole diffuser having a peripheral configuration similar to the peripheral configuration of said filter bodies, in the aggregate, when assembled with said filter housing and configured for interfitting within

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said filter housing, superimposed over said filter assemblies; in column 9, lines 41-44, a spacer interposed between said filters and said small hole diffuser; in column 9, lines 30-40, and a molded coarse hole diffuser, defining a combined diffuser and spacer integrally molded as a single, one-piece unit, said coarse hole diffuser including means for engaging and interfitting with said filter housing in close overlying engagement with said small hole diffuser, but fails disclose a filter mounting zone for receiving at least two filter assemblies.

Boudreault disclose in figure 3 and column 4, lines 52-54, a filter mounting zone for receiving at least two filter assemblies (11).

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart to include a filter mounting zone at least two filter assemblies as taught by Boudreault for the purpose of increasing the filter area.

As to claim 15, Hart disclose in column 8, lines 33-64, a mounting a filter assemblies with a generally rectilinear filter housing having at least two filter mounting zones so as to define, in the aggregate, a filter assembly; and sealingly engaging said filter body relative to said filter housing in response to forces encountered by said filter assembly, but fails disclose at least two filter assemblies with a generally rectilinear filter housing and during assembly and in operation

Boudreault disclose in figure 3 and column 4, lines 52-54, at least two filter assemblies (11).

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It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart to include at least two filter assemblies as taught by Boudreault for the purpose to increasing the filter.

Regarding 'during manufacture of the battery'. reciting the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d-1647 (1987).

As to claim 18, Hart disclose in figure 3 and column 9, lines 31-54 a small hole diffuser having a peripheral configuration similar to the peripheral configuration of said filter bodies in the aggregate, when assembled, with said filter housing, and interfitting within said filter housing superimposed over said filter assemblies; interposing a spacer between said filters and said small hole diffuser; and engaging a molded coarse hole diffuser, defining a combined diffuser and spacer integrally molded as a single, one-piece unit, with said filter housing in close overlying engagement with said small hole diffuser.

As to claim 24, Hart disclose in column 8, lines 32-64, a filter assembly comprising: means for mounting at least two filter assemblies with a generally rectilinear filter housing having at least two filter mounting zones so as to define, in the aggregate, a filter assembly; and means for sealingly engaging said filter body relative to said filter housing in response to forces encountered by said filter assembly both during assembly and in operation.

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As to claim 27, Hart disclose in figure 3, column 9, lines 31-54, a small hole diffuser having a peripheral configuration similar to the peripheral configuration of said filter bodies in the aggregate, when assembled with said filter housing, and for interfitting within said filter housing superimposed over said filter assemblies; means for interposing a spacer between said filters and said small hole diffuser; and means for engaging a molded coarse hole diffuser, defining a combined diffuser and spacer integrally molded as a single, one-piece unit, with said filter housing in close overlying engagement with said small hole diffuser.

As to claim 33, Hart disclose in column 8, lines 33-64, providing a generally rectilinear filter housing, said filter housing having at least two filter mounting zones (171, 172), each of said filter assemblies including a generally rectilinear filter (152) body having a peripheral configuration; in figure 9, column 9, lines 31-54, interfitting a filter gasket (150) about a periphery of said filter body (152) for sealingly engaging said filter body relative to said filter housing(152) in response to forces encountered by said filter assemblies both upon assembly and in operation; and interfitting said filter assemblies (107) in said filter mounting zones (171, 172), each of said filter mounting zones receiving one of said filter assemblies (107), but fails disclose the filter housing at least two filter assemblies.

Boudreault disclose in figure 3 and column 4, lines 52-54, at least two filter assemblies (11).

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It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart to include at least two filter assemblies as taught by Boudreault for the purpose of increasing the filter area.

As to claim 34, Hart disclose in column 8, lines 32-64, a generally rectilinear filter housing having at least two filter mounting zones (171, 172); said filter assemblies (107) being configured for interfitting a respective one of said filter mounting zones, each of said filter assemblies (107) including a generally rectilinear filter body having a given peripheral configuration and a filter gasket (150) configured for interfitting about a periphery of said filter body for sealingly engaging said filter body (152) relative to said filter housing in response to forces encountered by said filter assembly both upon assembly and in operation, but fails disclose a filter housing at least two filter assemblies.

Boudreault disclose in figure 3 and column 4, lines 52-54, at least two filter assemblies (11).

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart to include at least two filter assemblies as taught by Boudreault for the purpose of increasing the filter area.

3. Claims 2, 16 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (5,600,411) in combination with Boudreault (6,125,841) as discussed above, and further in combination with Bisconte (5,190,666).

As to claims 2, 16 and 25, Hart and Boudreault disclose the elements as claimed, except for the filter gaskets are comprised of a silicone material.

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Bisconte disclose in column 7, line 15, the filter gaskets are comprised of a silicone material.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart and Boudreault to include the filter gaskets are comprised of a silicone material as taught by Bisconte for providing a gasket able to be compressed while expanding radially so as to contribute to filter tensioning (column 7, lines 15-17).

4. Claims 3, 6, 7, 17, 20, 21, 26, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hart (5,600,411) in combination with Boudreault (6,125,841) as discussed above, and further in combination with Hak (6,494,940).

As to claim 3, 17 and 26, Hart and Boudreault disclose the elements as claimed, except for the filter bodies has a peripheral recessed portion for positioning mounting and bearing against a complementary edge portion of said filter gasket.

Hak disclose in figure 2, column 5, line 65 to column 6, line 6, the filter bodies has a peripheral recessed portion for positioning mounting and bearing against a complementary edge portion of said filter gasket.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart and Boudreault to include the filter bodies has a peripheral recessed portion for positioning mounting and bearing against a complementary edge portion of said filter gasket as taught by Hak for forming a seal

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prevent undesired passage of particulate around the periphery of the assembly (column 6, lines 4-6).

As to claim 6 and 7, Hart disclose in figure 3, column 9, lines 31-45, the filter housing comprises a frame-like, and a projecting frame-like peripheral portion extending outwardly for surrounding engagement with said filter elements, said spacer and said small hole diffuser. The small hole diffuser further includes a peripheral flange at least along portions of a periphery thereof for engaging with and seating relative to a complementary peripheral flange portion of said filter housing (152), but fails to disclose one-piece molded member having a recessed area for receiving each of said filter elements and an associated gasket therewithin, including separate areas for cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements.

Hak disclose in figure 2, column 5, line 65 to column 6, line 6, one-piece molded member having a recessed area for receiving each of said filter elements and an associated gasket therewithin, including separate areas for cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart and Boudreault to include one-piece molded member having a recessed area for receiving each of said filter elements and an associated gasket therewithin, including separate areas for cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof

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bearing against said filter elements as taught by Hak for forming a seal prevent undesired passage of particulate around the periphery of the assembly (column 6, lines 4-6).

As to claims 20 and 21, Hart disclose in column 9, lines 31-54, mounting comprises receiving filter elements and gaskets within a recessed area of a frame-like, one-piece molded member comprising said filter housing and said filter housing surroundingly engaging said filter elements, said spacer and said small hole diffuser, the filter engaging and seating a peripheral flange of said coarse hole diffuser relative to a complementary peripheral flange portion of said filter housing, but fails disclose a filter housing including cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements.

Hak disclose in figure 2, column 5, line 65 to column 6, line 6, a filter housing including cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart and Boudreault to include a filter housing including cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements as taught by Hak for forming a seal prevent undesired passage of particulate around the periphery of the assembly (column 6, lines 4-6).

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As to claims 29 and 30, Hart disclose in column 9, lines 31-54, mounting comprises receiving filter elements and gaskets within a recessed area of a frame-like, one-piece molded member comprising said filter housing, and said filter housing surroundingly engaging said filter elements, said spacer and said small hole diffuser, the filter engaging and seating a peripheral flange of said coarse hole diffuser relative to a complementary peripheral flange portion of said filter housing, but fails disclose the filter housing including cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements.

Hak disclose in figure 2, column 5, line 65 to column 6, line 6, a filter housing including cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Hart and Boudreault to include a filter housing including cooperatively interfitting with and bearing against edges of said gaskets opposite edges thereof bearing against said filter elements as taught by Hak for

Allowable Subject Matter

5. Claims 9-12, 23 and 32 are allowed

Claim 9 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest a molded coarse hole diffuser for a filter assembly for use with a circuit breaker, said molded coarse hole diffuser comprising a combined coarse hole diffuser and spacer integrally molded as a single, one-piece unit, said

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coarse hole diffuser including means for engaging and interfitting with a filter housing in close overlying engagement with a small hole diffuser.

Claims 10-12 are allowed due to their dependency on claim 9.

Claim 23 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest a method for diffusing said arc, comprising: positioning and maintaining said arc stack and said filter assembly in assembled relation within said breaker housing, including maintaining compression on said gaskets and maintaining constant assembly force upon said assembly, equalizing compression loading of said gaskets and providing final positioning of the arc stack and filter assembly into the breaker case, utilizing complementary projections and slots formed respectively on said arc stack, said coarse hole diffuser and said breaker housing. It is these features found in the claim, as they are claimed in the combination, which has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claim 32 is allowable. The reason for allowance is that the prior art of record fails to disclose or reasonably suggest means for diffusing said arc, comprising: means for positioning and maintaining said arc stack and said filter assembly in assembled relation within said breaker housing, including maintaining compression on said gaskets and maintaining constant assembly force upon said assembly, equalizing s compression loading of said gaskets and providing final positioning of the arc stack and filter assembly into the breaker case. It is these features found in the claim, as they are claimed in the combination, which has not been found, taught or suggested by the prior

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art of record, which makes this claim allowable over the prior art.

6. Claims 5, 8, 14, 19, 22, 28 and 31 are objected to as being dependent upon a rejected base claim. The prior art of record fails to teach or reasonably suggest that: Claims 5, 14, 19 and 28, a plurality of arc plates of an arc diffuser plate assembly, including means for locating and engaging said coarse hole diffuser relative to said arc plate assembly and means for engaging and maintaining a plurality of plates of said arc plate assembly in parallel and spaced apart condition. Claim 8 is dependent on claim 5. Claim 22 is dependent on claim 19. Claim 31 is dependent on claim 28. Claims 5, 8, 14, 19, 22, 28 and 31 would be allowable if rewritten in independent from including all of the limitations of the base claim.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Luk whose telephone number is (703)305-0617. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (703) 308-1680. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-7724 for regular communications and (703)305-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

LWL

December 13, 2003

Lawrence H. H.
examiner
12/13/03